

## What is Claimed:

- 1                   1.     A system for monitoring a process parameter, said system  
2 comprising:  
  
3                   a computer configured to receive data corresponding to a  
4 process parameter;  
  
5                   at least one sensor configured to measure the process  
6 parameter, said at least one sensor being coupled for communication of data  
7 corresponding to the process parameter to said computer; and  
  
8                   an interface configured for communicating data corresponding to  
9 the process parameter from said at least one sensor, said interface being  
10 configured to provide data to said computer via a portable computer as a  
11 secondary measurement of the process parameter.
- 1                   2.     The system of claim 1 wherein said at least one sensor  
2 includes a primary sensor coupled for communication of data corresponding  
3 to the process parameter to said computer, and a secondary sensor  
4 configured to provide data to said portable computer.
- 1                   3.     The system of claim 2 wherein said secondary sensor is a  
2 portable sensor, and said interface is a portable interface, said secondary  
3 sensor being configured for portable use with said interface and said portable  
4 computer.
- 1                   4.     The system of claim 1 additionally comprising the portable  
2 computer.
- 1                   5.     The system of claim 4 wherein the portable computer  
2 includes an analog to digital converter configured for receiving analog data  
3 from said interface and converting the analog data to digital data for  
4 transmission to said computer.

1                   6.     The system of claim 1 wherein said computer is  
2 configured to provide an alarm when data communicated from said at least  
3 one sensor to said computer indicates that the process parameter is outside  
4 of a predetermined range.

1                   7.     The system of claim 1 wherein said interface is configured  
2 to communicate with said at least one sensor through at least one of a hard-  
3 wired, infra-red and wireless connection.

1                   8.     The system of claim 1 wherein said interface is a portable  
2 interface configured for portable use with the portable computer.

1                   9.     The system of claim 1 wherein said interface is configured  
2 to communicate identification data corresponding to said at least one sensor  
3 to the portable computer along with data corresponding to the process  
4 parameter.

1                   10.    The system of claim 1 wherein the process parameter  
2 corresponds to a temperature of a blood storage environment, and said at  
3 least one sensor includes a temperature sensor configured to measure the  
4 temperature of the blood storage environment.

1                   11.    The system of claim 10 wherein the at least one sensor  
2 includes a primary temperature sensor coupled for communication of data  
3 corresponding to the temperature of the blood storage environment to said  
4 computer, and a secondary temperature sensor configured to provide data to  
5 the portable computer.

1                   12.    A system for monitoring a process parameter, said system  
2 comprising:

3                   a computer configured to receive data corresponding to a  
4 process parameter;

5                   a primary sensor configured to measure the process parameter,  
6   said primary sensor being coupled for communication of data corresponding  
7   to the process parameter to said computer;

8                   a secondary sensor configured to measure the process  
9   parameter as a secondary measurement of the process parameter;

10                  an interface configured to receive secondary data corresponding  
11   to the process parameter from said secondary sensor; and

12                  a portable computer configured to retrieve secondary data  
13   corresponding to the process parameter from said interface, said portable  
14   computer being configured to transmit the secondary data to the computer to  
15   verify the measurement of said primary sensor.

1                   13.   The system of claim 12 wherein said secondary sensor is  
2   a portable sensor, and said interface is a portable interface, said secondary  
3   sensor being configured for portable use with said interface and said portable  
4   computer.

1                   14.   The system of claim 12 wherein the portable computer  
2   includes an analog to digital converter configured for receiving analog data  
3   from said interface and converting the analog data to digital data for  
4   transmission to said computer.

1                   15.   The system of claim 12 wherein said computer is  
2   configured to provide an alarm when data communicated from said primary  
3   sensor to said computer indicates that the process parameter is outside of a  
4   predetermined range.

1                   16.   The system of claim 12 wherein said interface is a  
2   portable interface configured for portable use with said portable computer.

1                   17. The system of claim 12 wherein said interface is  
2 configured to communicate identification data corresponding to said  
3 secondary sensor to the portable computer along with data corresponding to  
4 the process parameter.

1                   18. The system of claim 12 wherein the process parameter  
2 corresponds to a temperature of a blood storage environment, and the  
3 primary sensor includes a primary temperature sensor coupled for  
4 communication of data corresponding to the temperature of the blood storage  
5 environment to said computer, and said secondary sensor includes a  
6 secondary temperature sensor configured to provide the secondary data to  
7 said portable computer.

1                   19. A method of verifying a measurement of a process  
2 parameter, said method comprising the steps of:

3                   measuring a process parameter with at least one sensor;

4                   transmitting data corresponding to the measured process  
5 parameter to a computer via a coupling between the at least one sensor and  
6 the computer;

7                   retrieving secondary data corresponding to the measured  
8 process parameter from the at least one sensor using an interface; and

9                   transmitting the secondary data to the computer via a portable  
10 computer.

1                   20. The method of claim 19 wherein said measuring step  
2 includes measuring the process parameter with a first sensor and a second  
3 sensor, the first sensor being coupled to the computer, said retrieving step  
4 including retrieving the secondary data from the second sensor.

1                   21. The method of claim 19 wherein the process parameter is  
2 measured to be outside of a predetermined range during said measuring  
3 step.

1                   22. The method of claim 21 further comprising the step of  
2 providing an alarm indicating that the process parameter is outside of the  
3 predetermined range.

1                   23. The method of claim 22 further comprising the step of  
2 comparing the secondary data transmitted to the computer with the data  
3 corresponding to the measured process parameter to verify if the process  
4 parameter is outside of the predetermined range.

1                   24. The method of claim 19 wherein said step of transmitting  
2 data includes transmitting identification data corresponding to the at least  
3 one sensor to the computer along with the data corresponding to the  
4 measured process parameter.

1                   25. The method of claim 19 wherein said measuring step  
2 includes measuring a temperature of a blood storage environment with a  
3 primary temperature sensor and a secondary temperature sensor, said  
4 transmitting data step includes transmitting data corresponding to the  
5 measured temperature to the computer via a coupling between the primary  
6 temperature sensor and the computer, and said retrieving step includes  
7 retrieving secondary data corresponding to the measured temperature from  
8 the secondary temperature sensor using the interface.

1                   26. A system for monitoring a temperature of a blood storage  
2 environment, said system comprising:

3                   a computer configured to receive data corresponding to the  
4 temperature of the blood storage environment;

5                   a primary temperature sensor configured to measure the  
6 temperature of the blood storage environment, said primary temperature

7 sensor being coupled for communication of data corresponding to the  
8 temperature of the blood storage environment to said computer;

9 a secondary temperature sensor configured to measure the  
10 temperature of the blood storage environment;

11 an interface configured to receive secondary data corresponding  
12 to the temperature of the blood storage environment from said secondary  
13 temperature sensor; and

14 a portable computer configured to retrieve secondary data  
15 corresponding to the temperature of the blood storage environment from said  
16 interface, said portable computer being configured to transmit the secondary  
17 data to the computer to verify the measurement of said primary temperature  
18 sensor.